



COMMONWEALTH of VIRGINIA

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November 7, 2005

Ms. Pamela F. Faggert
Vice-President and Chief Environmental Officer
Dominion Virginia Power Company
5000 Dominion Boulevard
Glen Allen, Virginia 23060

RE: Summary of Public Comments: Federal Consistency Certification for the
North Anna Early Site Permit Application
DEQ-05-079F

Dear Ms. Faggert:

As you know, the Commonwealth is engaged in the review of the federal consistency certification submitted by Dominion Virginia Power Company (hereinafter "Dominion") for the North Anna Early Site Permit Application. That application seeks an Early Site Permit from the U.S. Nuclear Regulatory Commission (NRC) for preliminary studies and site preparation for proposed third and fourth nuclear reactor units at the North Anna Power Station. The Department of Environmental Quality ("DEQ") has solicited public comments concerning the proposed project in keeping with the Federal Consistency Regulations (see 15 CFR Part 930, Sub-part D, section 930.61). This letter summarizes the comments of individuals and non-governmental organizations relative to the consistency of the activities proposed in the Early Site Permit application and the federal consistency certification with the enforceable policies of the Virginia Coastal Resources Management Program. It also addresses the environmental, human health, and natural resources issues raised by commenters.

It should be noted that the Early Site Permit application has also been the subject of a Draft Environmental Impact Statement ("Draft EIS") published by NRC pursuant to the National Environmental Policy Act ("NEPA"). DEQ coordinated the Commonwealth's review of the Draft EIS last winter (DEQ-04-216F, comments mailed March 3, 2005). The Commonwealth also reviewed an

earlier federal consistency certification which was officially withdrawn by Dominion. In that case, Dominion asked that the Commonwealth develop the review comments based on the extent to which the review had been completed to the time of the request, and DEQ complied (DEQ-03-223F, comments mailed February 10, 2004).

Public Concerns Introduction

The following citizens' groups and non-governmental organizations, representing members as indicated, stated their concerns or supported the concerns of others relative to fisheries, water withdrawal, and thermal impacts:

Southern Environmental Law Center, on behalf of itself and:
Public Citizen
Blue Ridge Environmental Defense League
Nuclear Information and Resource Service
Blue Ridge Environmental Defense League (on its own behalf)
Sierra Club, Piedmont Group (1185 members in Central Virginia)
Jerdone Island Association, representing 232 residential property owners
Friends of Lake Anna, Virginia, representing approximately 2,650 residents of communities on and near the Lake.

In addition, we received correspondence from 32 individuals (not counting co-signers) who oppose the federal consistency certification for the proposed third nuclear reactor unit pending resolution of water supply and water temperature issues by DEQ, other Virginia environmental agencies, and NRC, or who oppose the third unit outright for other reasons. Two individuals support the proposal. Discussion of these issues follows.

Unless otherwise indicated, the comments summarized here relate only to the proposed third and fourth nuclear reactor units as described in the Early Site Permit application, the federal consistency certification, and the Draft EIS. This letter does not focus on the change in the method of cooling the proposed third reactor unit that was recently proposed by Dominion.

It is also worth noting at the outset that, as the Friends of Lake Anna, Virginia emphasized in their October 24 letter to several NRC staff and the operations manager of the North Anna Power Station, the residents of the area are "not anti-nuclear" and "would support a 3rd and 4th dry-cooled reactor" at the North Anna Power Station (pages 1 and 6). Unless otherwise indicated the comments summarized here either reiterated, agreed with, or did not object to this emphasis. What is objected to by most of the citizens, residents' associations, and non-governmental organizations responding to the public notice is the proposal to construct a third nuclear reactor unit that would be water-cooled, using water from Lake Anna.

Federal Consistency under the Coastal Zone Management Act

As you know from the earlier reviews cited above, the major concerns identified by state reviewing agencies relative to the proposed water-cooled third nuclear power unit are that as presently proposed, it would be inconsistent with the Fisheries Management and the Point-Source Pollution Control enforceable policies of the Virginia Coastal Resources Management Program. Specifically:

- a. The diminution of downstream river flows resulting from increased water demand at the North Anna Power Station would impair the habitat and threaten the survival of several species of fish inhabiting the North Anna River. This would be inconsistent with the Fisheries Management enforceable policy.
- b. The increased water demands would increase the extent of annual drought and diminish Lake and river flows, with adverse impacts on the beneficial uses of State waters. This is inconsistent with the Point Source Pollution Control enforceable policy in regard to water withdrawals under Section 401 of the Clean Water Act administered by DEQ's Virginia Water Protection Permit program.
- c. The proposed increased temperature of the water entering the "cool side" of the Lake could be inconsistent with the Point Source Pollution Control enforceable policy in regard to thermal impacts under the Virginia Pollutant Discharge Elimination System (VPDES) permitting program.

The following information summarizes concerns with regard to these issues and indicates (item 4) the opposing viewpoint, which is in favor of the approval of a third water-cooled nuclear reactor unit.

1. Fisheries Management Concerns.

The Southern Environmental Law Center (SELC) indicates that reduced flows in the North Anna River could adversely affect anadromous fish habitat. Many fish species undergo spawning and early life stages in the months of July through October, which are typically the drier months of the year. Substantial flows during this time are critical for a significant number of these species, and SELC cites the Department of Game and Inland Fisheries for the proposition that there is a direct relationship between the magnitude of flow and the abundance of fish (SELC letter, page 4).

SELC, citing the Commonwealth's response to NRC's Draft EIS, indicates that increased water temperatures from heated wastewater discharge could affect aquatic habitat and fish populations within the Lake. Such temperature increases might even jeopardize the entire striped bass fishery (SELC letter, page 4).

The Blue Ridge Environmental Defense League (“League”) addressed the same issue, quoting from the Commonwealth’s earlier response to the withdrawn federal consistency certification (DEQ-03-223F, comments mailed February 10, 2004, page 6 of letter.)

It is likely that a small increase in reservoir water temperature would have a dramatic effect, further reducing already limited habitat and perhaps jeopardizing the entire striped bass fishery.

The Friends of Lake Anna, Virginia stated its concern that temperature increases in the water would affect fish as well as humans (October 19, 2005 letter, page 1).

Of the 32 individual objections to the federal consistency certification, 12 mentioned impacts on fisheries among the reasons for their concerns.

2. Flow Management and Drought.

SELC indicates that the proposed water cooling system would increase discharges of heated wastewater effluent into the Lake, causing a greater loss of lake water through evaporation. The increased evaporation would result in lower lake levels and reduced water releases to the North Anna River downstream (SELC letter, dated October 25, 2005, pages 3-4).

SELC cites the Commonwealth’s response to NRC’s Draft EIS for the proposition that the Lake Anna watershed is relatively small, with a mean annual flow at the Lake Anna Dam of approximately 370 cfs. In consequence, the ability of the Lake and the North Anna River to withstand additional consumptive water uses requires close scrutiny. The existing Virginia Water Protection Permit, applicable to the existing two nuclear reactor units, requires a minimum discharge of 20 cfs from the Dam to the River, or 5.4% of the mean annual flow. The Draft EIS indicated that additional evaporative losses caused by operation of a third nuclear reactor unit would increase the time that the discharge is 20 cfs or less from the current 5.8% to 11.8% of the time (SELC letter, page 4).

The Blue Ridge Environmental Defense League (“Blue Ridge League”) added that, as the Draft EIS stated (page 2-23), several municipalities downstream from Lake Anna are considering whether the North Anna and Pamunkey Rivers could serve as water supply sources (Blue Ridge League e-mail, page 2, “Coastal Resource Impacts” heading). Reduced river flows due to evaporation might affect these possibilities. The SELC voices this concern as well, stating its understanding, from the Draft EIS, that one county upstream of the Lake and three counties downstream of it are considering whether the North Anna River or Pamunkey River could serve as drinking water sources. SELC further states that these competing demands for water highlight the potential

problems associated with reduced lake levels and downstream flows, and would, in combination with reduced lake levels and river flows, undermine the Commonwealth's goal for the Coastal Resources Management Program of avoiding potential coastal resource use conflicts (SELC letter, page 5).

Of the 32 individual objections to the federal consistency certification, 21 mentioned impacts on water flows among the reasons for their concerns.

3. Thermal Effects on Water Quality.

SELC believes that increased water temperatures from heated water discharge could reduce fish habitat and possibly jeopardize the striped bass fishery (SELC letter, page 4; see also item 1(b)(i), above).

Of the 32 individual objections to the federal consistency certification, 24 mentioned water temperature impacts among the reasons for their concerns.

4. Public Approval of the Federal Consistency Certification; Discussion.

We received correspondence from 2 individuals who support approval of the certification. One of these supported the approval with the following conditions:

- That releases of water over the dam be uncontrolled when the pool levels in the Lake are at 250 feet or more above mean sea level, and controlled at 5 cubic feet per second (cfs) when the pool levels are below 250 feet; and
- That water temperature at the exit of the discharge canal be limited to no higher than 104 degrees Fahrenheit (see "Advisory Policies and Other Environmental Issues," items 1 and 2, below).

The other correspondent expressed concern about the effects of increased demand for cooling water on Lake levels, but wrote again to correct himself, indicating his understanding that the discharge from the "hot side" of the Lake goes to the "cold side" and not to the North Anna River.

Advisory Policies and Other Environmental Issues

In addition to expressing concerns relative to the consistency of the proposed third and fourth nuclear reactor units with the enforceable policies of the Virginia Coastal Resources Management Program, the residents' associations, non-governmental organizations, and individuals referred to above (see "Public Concerns Introduction") discussed other issues relating to the environmental and health impacts of the proposal, the safety of nuclear power, the focus and management of the public review processes, and other matters

including the adequacy of analyses in the NRC's Draft EIS. Brief descriptions of these issues follow.

1. Recreational Uses of the Lake and the River.

SELC indicated its concern that additional water withdrawals from the Lake, increased discharges of heated wastewater to the Lake, and corresponding reductions in water releases from the Dam could affect recreational uses of Lake Anna and the downstream watershed. Lower water levels in the Lake could impair recreational boating, while higher temperatures could affect swimming. Similarly, downstream fishing and boating could be affected in the North Anna River downstream of the Dam.

2. Human Health.

Five letters mentioned human health impacts from raised water temperature as a reason for concern.

The Friends of Lake Anna, Virginia (FOLA) and several individuals expressed concerns about the likelihood of water temperature increases attributable to the new reactor. One correspondent, referring to the earlier comments of the Health Department, indicates that potential health hazards to young people and the elderly from hot water would be an impediment to water recreation activities (Scoggin e-mail, October 24). Another indicated that he has measured water temperatures at 100 degrees F. during August and that Dominion has admitted that temperatures would go as high as 113 degrees (Higgins e-mail, October 25).

3. Early Site Permit and Timing of Decisions. Three non-governmental organizations and 15 individuals indicated concerns with Dominion's apparent interest in limiting the consistency review to activities which would be authorized by the Early Site Permit and its reiteration, in public meetings, that issues relating to water flow or water temperature are not "ripe" for argument or resolution (see, for example, FOLA letter from Harry Ruth, dated October 24, pages 2, 5, and 6).

Such statements are seen as inconsistent with the guidance in the Draft EIS (page 1-3) that the NRC is not required to re-visit environmental impacts after issuance of the Early Site Permit (SELC letter, page 2). As SELC states, the Early Site Permit, if issued, would indicate that the proposed site would be "suitable for the construction, and operation, of new nuclear power generating facilities" (emphasis in the SELC letter; citing Draft EIS, page iii). The Blue Ridge League indicates that it is essential that the state review of the federal consistency certification include potential coastal resources impacts from construction and operation of the new reactors, not just the impact from limited site preparation activities (page 2, October 25 e-mail).

4. Nuclear Safety.

Two individuals raised the concern that augmented nuclear facilities would be a “target for terrorists”. One of these, along with another individual, mentioned the problem of disposal of nuclear waste, stating “we still don’t know what to do with the waste from existing reactors” (Grigsby e-mail, October 6).

5. Other Issues.

Public comments also included (i) a preference for the Surry Power Station site (ii), a criticism of the treatment of cumulative impacts in the Draft EIS (iii), a concern about the ability to safely evacuate the area in the event of a disaster (iv), concerns about the investment value of Lake area properties (v), and deficiencies in NRC’s Safety Evaluation Report (FOIA letter to NRC by Harry Ruth, October 24, pages 2-4).

I hope this information is helpful to Dominion and to others in understanding the public sentiments concerning the third water-cooled nuclear reactor unit proposal. If you have questions, please feel free to call me at 698-4325, or Charlie Ellis at 698-4488.

Sincerely,

Ellie I. Irons, Program Manager
Office of Environmental Impact Review
Division of Environmental Enhancement

cc: Michael P, Murphy
Jack Cushing, NRC
Morgan W. Butler, SELC
Louis Zeller, BFEDL
John a. Cruickshank, Sierra Club
Harry Ruth, FOIA
Peter R. Dorn, JIA
Andrew Zadnik, DGIF
Jeffery Steers, NVRO
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